

Remarks

Claims 1-10, 12, 13, 16-30, 32, 33, 36-53, 55, 56 & 59-68 remain pending. In the final Office Action, all pending claims stand rejected under 35 U.S.C. §102(b) as being anticipated by Mizuyama et al. (U.S. Patent No. 5,946,693; hereinafter "Mizuyama"). This rejection is respectfully traversed and reconsideration thereof is requested for the reasons set forth below.

For the reasons stated herein, Applicant respectfully requests that the Examiner reconsider at least the final rejection of various independent and dependent claim rejections set forth in the final Office Action. This request is made in the interest of furthering prosecution of the subject application.

More particularly, Applicant respectfully submits that a *prima facie* case of anticipation against various pending independent and dependent claims is not stated in the final Office Action. These various independent and dependent claims recite functionality which is not taught or suggested by Mizuyama, nor clearly addressed in the final Office Action. For example, independent claims 13, 33, 42 & 56, as well as dependent claims 3, 5, 6, 23, 25, 26, 46, 48, 49 & 65-68 recite functionality which includes:

building a modifier object for a corresponding field in response to the auditing determining that a specified event related to the corresponding field has occurred.

A careful reading of Mizuyama fails to uncover any similar functionality. It is well settled that there is no anticipation of a claim unless a single prior art reference discloses: (1) all the same elements of the claimed invention; (2) found in the same situation as the claimed invention; (3) united in the same way as the claimed invention; and (4) in order to perform the identical function as the claimed invention. In this instance, Mizuyama fails to disclose certain functionality of Applicant's above-noted claims, and as a result, does not anticipate (or even render obvious) Applicant's invention.

For an alleged teaching of this functionality, the Office Action references at pages 3 & 7, column 2, lines 35-52 and column 6, lines 41-62 of Mizuyama. These lines are repeated hereinbelow for convenience:

In the first aspect of the present invention as described above, an update method code (update method) that issues update events for the purpose of posting data changes with respect to all other observer objects connected to the slot data, for which data changes have been detected by detecting the fact that data are stored in any of the slot data defined by the observable object, can be formed to be additionally included in the observable object. Together with this, in the first preferred embodiment of the present invention described above, the observable object is formed so as to include an isModified procedure code that detects whether or not data stored in each of the slot data defined by the observable object have been changed. Then, the observer object can be formed so as to include the second method code which includes an isModified method code for the purpose of specifying the slot data specified by the first method code and executing the isModified procedure code included in the observable object.

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The isModified method shown in FIG. 3(e) executes the "isModified procedure", not shown in any of the figures, in the slot 103 of the specified observable 101, specified by the slot descriptor "desc" given as desc.isModified(). This procedure returns the Boolean value "true" if the "data" in the slot 103 have been changed, or the Boolean value "false" if the data have not been changed.

In the configuration shown in FIG. 1, when an update event, to be described below, is issued, the observers 102 (#1), 102 (#2) and 102 (#3) detect whether or not the "data" in each of the slots 103 have been changed, for each of the slots 103 in the observable 101, by executing the isModified methods listed below with respect to each of the slots 103.

a.isModified()

b.isModified()

b'.isModified()

c.isModified()

When an update event is issued, each observer 102 can maintain compatibility with the observed state with respect to the observable 101 by executing this isModified method.

First, Applicant notes that the teaching of Mizuyama is that the isModified method executes the “isModified procedure”. Mizuyama clearly describes the action of executing an existing procedure. In contrast, Applicant’s claims at issue recite building a modifier object. Building a modifier object is a different function than executing an “isModified procedure”, as would be understood by one skilled in the art. For at least this reason, Applicant respectfully requests reconsideration and withdrawal of the anticipation rejection to these claims based on Mizuyama.

Still further, the claims at issue recite building a modifier object for a corresponding field **in response to the auditing determining the specified event relating to the corresponding field has occurred**. This aspect of Applicant’s functionality is simply not addressed by the final Office Action and, as such, Applicant respectfully submits that the final Office Action fails to state a *prima facie* case of anticipation against these claims.

No action is described in Mizuyama as being taken **in response to the auditing determining the specified event relating to the corresponding field has occurred**, let alone an action wherein there is a **building of a modifier object for the corresponding field**, in accordance with Applicant’s facility. The above-noted lines from Mizuyama describe an observable object initially being formed to include an isModified procedure code, whether or not data stored in each of the slot data defined by the observable object is changed. Then subsequently, the isModified method executes the “isModified procedure”. This procedure returns the Boolean value “true” if the “data” in the slot 103 have been changed, or the Boolean value “false” if the data have not been changed. However, this is not the functionality recited in Applicant’s invention. Mizuyama does not teach building a modifier object *per se*, let alone building a modifier object for each corresponding field in response to the auditing determining that a change has occurred in data of that corresponding field. Applicant’s modifier object does not equate to an isModified procedure as taught by Mizuyama. In Applicant’s invention, the modifier object is built after, i.e., in response to, auditing determining that a change has occurred in data in the corresponding field. Applicant’s recited facility is thus after any isModified procedure code of Mizuyama would have executed.

For the above reasons, Applicant respectfully submits that the functionality recited in the above-noted claims is not anticipated by Mizuyama, nor has the final Office Action set forth a *prima facie* case of anticipation of the functional language recited in these claims. Therefore, Applicant respectfully requests withdrawal of the finality of the final Office Action and reconsideration of the claims. Such an action would facilitate prosecution of this application, since Applicant respectfully submits that an Appeal Conference on the subject claims will result in such action being taken.

Still further, certain of these claims recite forwarding each modifier object to a pool of one or more modifier objects. Again, no similar functionality is described by Mizuyama. The observable object in Mizuyama is initially formed so as to include the isModified procedure code. That is, the isModified procedure code is resident in the observable object from the beginning. This code detects whether or not data stored in each of the slot data defined by the observable object has changed. In contrast, Applicant's modifier object is built responsive to an auditing determining that a specified event relating to the corresponding field has occurred. Further, in Applicant's invention, this modifier object is then forwarded to a pool of one or more modifier objects.

Yet further, certain of these claims specify informing an observer object that the modifier object has been added to the pool, and then subsequently retrieving by the observer object the modifier object from the pool and running, by the observer object, a modifier method of the modifier object to accommodate the change in the data of the corresponding field. Again, no similar functionality is set forth by Mizuyama. Mizuyama simply describes an isModified procedure code stored within the observable object. There is no teaching or suggestion of Applicant's recited functionality in the Mizuyama patent. This appears to be recognized, at least in part, by the Examiner at page 7 of the final Office Action where it is stated that "the 'isModified procedure' is inherently then added to a pool to be utilized to determine whether a change has occurred." This statement is respectfully traversed.

First, the "isModified procedure" of Mizuyama determines whether the data in the slot has been changed. In contrast, all of Applicant's functionality at issued is recited to occur in response to the auditing determining that a specified event related to the corresponding field has occurred. Thus, in Applicant's invention, a determination is initially made whether there is a

change, and if so, then the modifier object is built for a corresponding field, forwarded to a pool of one or more modifier objects, an observer object is then informed that the modifier object has been added to the pool, and the observer object subsequently runs the modifier object to accommodate the change in the data of the corresponding field. This accommodation of the change occurs at the observer object in Applicant's invention, which is clearly distinct from the teachings of Mizuyama.

Further, Applicant respectfully, but most strenuously, traverses the allegation of inherency of this functionality in the teachings of Mizuyama. The final Office Action points to no portion of the Mizuyama patent to establish the recited functionality of:

- (1) building a modifier object for a corresponding field;
- (2) in response to the auditing determining that a specified event related to the corresponding field has occurred;
- (3) forwarding each modifier object to a pool of one or more modifier objects;
and
- (4) informing an observer object that the modifier object has been added to the pool, and then subsequently retrieving by the observer object the modifier object from the pool and running, by the observer object, a modifier method of the modifier object to accommodate the change in the data of the corresponding field.

There is no discussion or indication in Mizuyama that this particular functionality recited by Applicant naturally flows from the teachings of the Mizuyama patent. The doctrine of inherency is well-settled in patent law, and is best described in an excerpt from Hansgirk v. Kemmer, 26 C.C.P.A. 937, 102 F.2d 212, 40 U.S.P.Q. 665 (1939):

Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. [citations omitted.] If, however, the disclosure [of the cited reference] is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function, it seems to be well settled that the disclosure should be regarded as sufficient [to anticipate the claimed invention].

Id. at 940, 102 F.2d at 214, 40 U.S.P.Q. at 667; Stoller v. Ford Motor Co., 18 U.S.P.Q. 2d 1545, 1547 (Fed. Cir. 1991); Tyler Refrigeration v. Kysor Industrial Corporation, 227 U.S.P.Q. 845, 847 (Fed. Cir. 1985); Ex parte Levy, 17 U.S.P.Q. 2d 1461, 1464 (B.P.A.I. 1990); In re Oelrich and Divigard, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981).

In Ex parte Levy, the court stated that “[i]n relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art.” Ex parte Levy, 17 U.S.P.Q. 2d at 1464 (lengthy citation omitted) (italics added). The Office Action has neither pointed to any passage in Mizuyama where the above-outlined functionality (1) – (4) is described, nor set forth any technical reasoning to support an inherency rejection of the recited functional language. Absent such a showing, it is well established that claims are to be read in their entirety, including any functional limitations presented therein. For this additional reason, reconsideration and withdrawal of the final Office Action is respectfully requested.

To summarize, Applicant respectfully submits that the Office Action mischaracterizes the teachings of Mizuyama when applied against the functionality of Applicant’s above-noted claims at issue, and fails to state a *prima facie* case of anticipation against these claims. There is no **building** of a modifier object in Mizuyama for a corresponding field, nor is there any building of a modifier object in Mizuyama **responsive to an auditing determining that a specified event relating to the corresponding field has occurred**. Still further, there is no **forwarding of a modifier object to a pool of one or more modifier objects**, nor is there any **retrieving by an observer object of the modifier object from the pool and running of a modifier method of the modifier object to accommodate the specified event**. For all these reasons, withdrawal of the final Office Action and reconsideration of the anticipation rejection of these claims is requested.

Additionally, Applicant respectfully submits that a *prima facie* case of anticipation against dependent claims 67 & 68 is not stated in the final Office Action. The final Office Action generally alleges at page 5 that these claims are rejected for the reasons set forth in the various combination of the rejections to claims 1-6. However, Applicant points out that the subject matter of these claims is not recited in claims 1-6. As such, no explanation of a rejection

to claims 67 & 68 is provided in the final Office Action. This clearly represents an omission which will be overturned by an Appeal Conference after a Notice of Appeal has been filed. Thus, Applicant respectfully requests reconsideration of the final Office Action and withdrawal of the rejection of these claims.

In claim 67, Applicant recites that the at least one observer object is a plurality of observer objects, and that the method further includes automatically informing the plurality of observer objects that the modifier object has been added to the pool of one or more modifier objects, and wherein the plurality of observer object collaborate to avoid executing the modifier method of the modifier object multiple times. No collaboration between observer objects in Mizuyama is believed taught or suggested with respect to executing a modifier object forwarded to a pool. In claim 68, Applicant further recites that the one or more modifier objects are to be processed in a designated order, and that the method further comprises associating a tag with each modifier object to enable the plurality of observer objects to retrieve modifier objects from the pool in a specified order. Taken together, these claims recite that the modifier objects on the pool are executed in a specified order, and that the observer objects collaborate to avoid executing a modifier method of a modifier object multiple times. No similar functionality is believed taught or suggested by Mizuyama, nor has the final Office Action set forth any basis for a rejection of these claims. Therefore, Applicant respectfully requests withdrawal of the finality of the Office Action of June 24, 2005, and consideration of the subject matter of these claims.

Should the Examiner have reservations regarding withdrawing the finality of the Office Action of June 24, 2005, Applicant's undersigned representative requests the scheduling of a telephone conference between the Examiner, the undersigned, and the Examiner's Supervisor, Tuan Dam, in order to discuss these matters in further detail in the hope of advancing prosecution of this application.

Since this paper is filed to request withdrawal of the final Office Action and consideration of the above-noted issues, Applicant simply repeats hereinbelow in italics the Remarks contained in the prior-filed Response to Office Action dated April 5, 2005, for reconsideration with respect to the remaining pending claims.

Applicants request reconsideration and withdrawal of the anticipation rejection on all the remaining claims on the following grounds: (1) the Office Action has misinterpreted the teachings of the Mizuyama patent, thus voiding the basis for the rejection; (2) the Mizuyama patent lacks any teaching, suggestion or incentive for its further modification as necessary to achieve Applicant's recited invention; and (3) the necessary modifications, to the extent alleged in the Office Action, are a hindsight reconstruction of the claimed invention using Applicant's own disclosed subject matter.

Applicant's recited invention (e.g., recited in claim 1) is directed to a technique for auditing data of a data entry form which employs a plurality of observable objects. Each observable object is provided for a different, corresponding field of a plurality of fields of the data entry form to be audited, and each observable object includes logic to be used in auditing data of its corresponding field. The technique further includes auditing data of the plurality of fields using the plurality of observable objects.

In enhanced aspects, when the auditing logic of a particular observable object detects that a specified event, such as a change in the data, has occurred, then a modifier object is automatically created, which includes the logic for accommodating the specified event. The modifier object is added to a pool of objects, and it is the responsibility of an observer to retrieve the modifier object and execute its logic.

A stated goal of the present invention is to overcome deficiencies of previous techniques associated with auditing various features, including reducing the complexity of the auditing logic and decentralizing the auditing responsibility. Thus, in accordance with the present invention, each feature to be audited is represented by a different observable object (see paragraph [0037] of the specification).

Mizuyama describes a system for communicating among objects and establishing links among them. As shown in Fig. 1, an observable object (101) for one or more groups of slot data is defined, including a slot name, data, and access procedure code which performs access to the data. An observer object 102 acquires a slot descriptor for the purpose of identifying slot data, by opening the slot data of the observable object using the slot name in which they are stored. The relationship between the observer object and the observable object can be determined

dynamically at the time of execution by specifying the slot name (the slot descriptor), without needing to define them in the class source codes which define those objects. In this way, it is possible to develop and operate a system for communication between objects. By means of the additive type of configuration presented, data stored in the slot data defined by one observable object can be referred to by a plurality of observer objects simultaneously.

Initially, Applicant respectfully traverses the characterizations of the teachings of Mizuyama stated in the Office Action with respect to claims 11, 14, 31, 34, 54 & 57, now recited in independent claims 1, 13, 21, 33, 41, 42, 45 & 56 (as well as original claims 16, 36, 43 & 59). Specifically, Applicant's processing includes providing a plurality of observable objects, with each observable object being provided for a different, corresponding field of a plurality of fields of a data entry form to be audited. A careful reading of Mizuyama fails to uncover any discussion of a data entry form per se, let alone the auditing of a data entry form using a facility such as recited by Applicant. In Applicant's independent claims, a different observable object is defined for each field of a plurality of fields of the data entry form to be audited.

Further, each observable object includes logic to be used in auditing data of its corresponding field. In support of a rejection of the subject matter, the Office Action generally references column 2, lines 5-18 & 22-52 of Mizuyama. No explanation is provided as to how these lines anticipate Applicant's recited functionality. Applicant respectfully submits that a review of this material, including the figures of Mizuyama, reveals that Mizuyama is describing a technique for communicating among objects and establishing linkages among them, wherein a single observable object of the system is provided which includes one or more groups of slot data. Thus, the approach of Mizuyama is a centralized approach wherein a plurality of observer objects can refer to the centralized observable object. As noted above, a goal of the present invention is to provide a facility which is decentralized in order to limit a possible bottleneck that might occur with multiple observers attempting to access data fields in one observable object. Thus, one busy observable object and corresponding data field will not affect other fields of the data entry form to be audited using Applicant's approach.

For at least the above reasons, Applicant respectfully submits that the Office Action mischaracterizes the teachings of Mizuyama when alleging the anticipation rejection to the subject matter of the independent claims presented. Mizuyama does not disclose a facility for

providing a plurality of observable objects, with each observable object being provided for a different, corresponding field of a plurality of fields of a data entry form to be audited. Since this teaching is clearly missing from Mizuyama, Applicant respectfully requests reconsideration and withdrawal of the anticipation rejection to their independent claims.

Further, upon a review of Mizuyama, there is no teaching, suggestion or incentive for its further modification as would be necessary to achieve Applicant's invention. Again, in addition to the observable object in Mizuyama being a centralized approach, there is no discussion therein of providing a plurality of observable objects, with each observable object being provided for a different, corresponding field of a plurality of fields of a data entry form to be audited.

Yet further, the characterizations of the teachings of Mizuyama in the Office Action provide no technical basis outside that contained in Applicant's own specification. The Office Action's characterizations of Mizuyama merely assert the language of Applicant's claimed invention in hindsight without explaining how Applicant's various claims would have been anticipated to one of ordinary skill in the art based upon Mizuyama. Thus, the rejection violates the well-known principle that Applicant's own disclosure cannot be used as a reference against him.

Applicant notes that the consistent criterion for the determination of obviousness is whether the art would have suggested to one of ordinary skill in the art that the claimed invention should be carried out and would have a reasonable likelihood of success, viewed in light of the prior art. The suggestion and the expectation of success must be found in the prior art, not in Applicant's disclosure. In re Dow Chemical Company, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1998) (multiple citations omitted). The rejections at issue simply characterize Mizuyama in the language of Applicant's own disclosure, rather than identify a basis in the prior art for achieving the modifications necessary to arrive at Applicant's claimed invention, in violation of this well-known principle. This is yet another, independent reason why the current invention is not anticipated by or obvious over the applied art.

In summary, Applicant traverses the rejection of his claims at issue based upon the various misinterpretations of the Mizuyama patent; the lack of an actual teaching or suggestion of his invention in Mizuyama; and the use of Applicant's own disclosure and results as a basis for any alleged modifications.


There is no discussion in Mizuyama of providing a plurality of observable objects, each observable object being provided for a different, corresponding field of a plurality of fields of a data entry form to be audited. Nor is there any discussion in Mizuyama of building a modifier object for a corresponding field, in response to the auditing determining that a specified event relating to the corresponding field has occurred, or the forwarding of the modifier object to a pool of one or more modifier objects, or the retrieving, by an observer, the modifier object from the pool, and the running of a modifier method of the modifier object to accommodate the specified event.

For all the above reasons, Applicant respectfully submits that the independent claims patentably distinguish over the teachings of Mizuyama. Reconsideration and withdrawal of the anticipation rejection based thereon is therefore requested.

The dependent claims are believed allowable for the same reasons as the independent claims, as well as for their own additional characterizations. In addition to the various dependent claims discussed above, Applicant notes that claims 2, 22, 45 & 64 recite that the plurality of observable objects provide decentralized locations for auditing data of the plurality of fields. This is contrary to the discussion and depictions in Mizuyama, which appear to centralize the data structure in one observable object. The observable object in Mizuyama becomes a central manager, with each observer registering with the observable object to view an internal data field thereof. This is clearly contrary to Applicant's recited decentralized processing.

For at least the above reasons, Applicant respectfully submits that all claims are in condition for allowance, and such action is respectfully requested.

Respectfully submitted,



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Dated: August 22, 2005.

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